

What is Claimed Is:

1. An acoustic signal processor comprising:

a determination unit for determining a frequency

5 band having the highest energy level out of the frequency bands constituting the input acoustic signals; and

a variable equalizer having characteristic for maintaining the energy level substantially at a constant level for frequency bands lower than the frequency band
10 determined by said determination unit, and for increasing the amplification degree of the energy level as the frequency increases for the frequency bands higher than the frequency band determined by said determination unit.

15 2. The acoustic signal processor according to Claim 1, wherein said variable equalizer has 6 [dB]/octave high pass filter characteristic.

3. The acoustic signal processor according to Claim 1,
20 wherein a delay circuit for providing a delay time, corresponding to a response delay time unique to said variable equalizer, to the input acoustic signals, is inserted at the input side of the variable equalizer.

25 4. The acoustic signal processor according to Claim 1, wherein an A/D converter is inserted at the output side of said variable equalizer.

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5. The acoustic signal processor according to Claim 1, wherein the rise frequency of the variable equalizer shifts to the low frequency side as the energy level of the input acoustic signals decreases, and the rise frequency of the variable equalizer shifts to the high frequency side as the energy level of the input acoustic signals increases.

6. The acoustic signal processor according to Claim 1, wherein the amplification degree of the variable equalizer is in the 15 [dB] to 25 [dB] range.

7. The acoustic signal processor according to Claim 3, wherein the response time of said variable equalizer is 5 [msec] or less when the high pass filter characteristic shifts to the high frequency side, and is 10 [msec] or less when the high pass filter characteristic shifts to the low frequency side.

8. An acoustic signal processor, comprising:
an A/D converter for digitizing input acoustic signals; and
a processor comprised of a micro-processor unit or a digital signal processor for generating digital acoustic signals, performing frequency analysis on the digital acoustic signals from said A/D converter, and amplifying the frequency bands higher than the frequency band at which the energy level is the highest.